

REMARKS:

The Office action mailed July 19, 2007 has been received and carefully considered. A Request for Continued Examination is filed herewith. Reconsideration in view of the following and the request for continued consideration is respectfully requested.

Claims 1 to 21 were rejected as obvious in view of Shafer (DE29810798) and Jackson. The Office action takes the position that the device 1 shown in Figs. 1 and 2 of Shafer teaches or shows that "The guide flange is continuous and helical and has a compound contour including an enlarged outer periphery with an inward facing component". Applicant does not find such teachings in Shafer.

Fig. 1 of Shafer shows a relatively common reverse angle V-shaped thread and does not teach a guide flange that is helically wound or has an enlarged outer periphery.

Fig. 2 of Shafer is partially shown below. It has a flange structure but is not helically wound. In particular, for Shafer to be helically wound, there must be a positive pitch to the flange form. That is, each tier of the flange form must slope or raise from the front side to the rear side relative to the base and each tier thereafter must be parallel to the first. The base must be "horizontal" or level as a starting point because it must receive the bottom of a rod held by the bone screw.

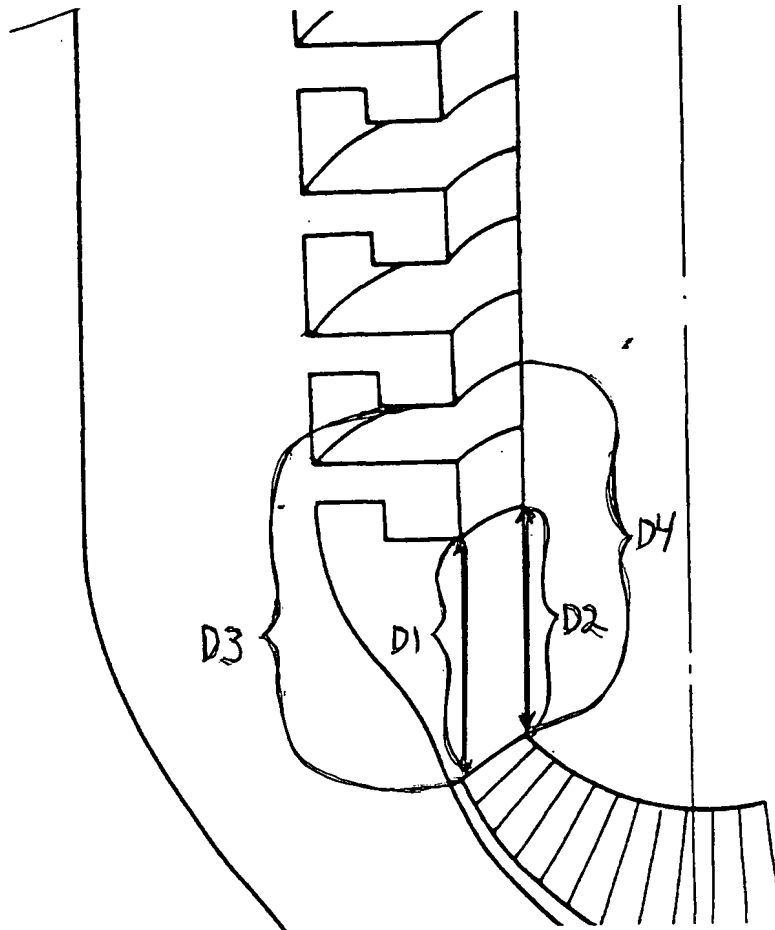


Fig. 2

Dimensions D1, D2, D3 and D4 are marked in Fig. 2. D1 and D2 are respectively the distances from the base to the front and rear side of tier 1. D3 and D4 are respectively the distances from the base to the front and rear of tier 2. For the flange form to be helically wound, D2 must be greater than D1 and D4 must be equally greater than D3. Here, D1 is essentially equal

to D2 and D3 is essentially equal to D4. Consequently, the structure of Fig. 2 cannot be helically wound.

Fig. 1 is a V-thread and in no way shows or teaches how to modify the flange form of Fig. 2 to be helically wound. This is especially true as the helically wound flange form of applicant's invention and claims is a very complex structure that is in no way taught or suggested by the twist in device shown in Fig. 2. It is noted that other twist in devices are known that are not helically wound in the art, such as is shown on the accompanying pages from patents. In Mellinger, et al. (6,302,888), the closure has flange forms, but slides in sideways. The same is true of the closure of Wisnewski (5,562,663). In the Schlapfer patent 6,077,262, a projection rotates 90 degrees into a receiving channel to hold the closure in place. It is urged that Shafer teaches a structure quite similar to Mellinger and does not teach or suggest a helically wound flange form. Types of closures where the projections screwed or rotated ninety degrees into the receiver or slide in sideways are common in the prior art, but do not teach how to build a structure that will helically rotate into the receiver.

It is further noted that Figure 2 of Shafer is described in a single paragraph. The translation on record of Shafer for this paragraph reads as follows:

"In the exemplary embodiment shown in Figure 2, the bifurcated head 4 of the bone screw 1 likewise has a thread, which, however, has a top flank 11 and a bottom flank 10 embodied in a stepped fashion. The shoulder of the bottom flank 10 is shaped such that it forms an undercut 17. This undercut 17, particularly by means of the shoulder 18, prevents the legs 5 from being bent radially outward while the grub screw 3 is being screwed in. A positive lock is thus produced in the radial direction between the bifurcated head 4 and grub screw 3. This positive lock prevents, as previously mentioned, any slippage of the leg 5."

Nothing in the paragraph above teaches, suggests or in any way implies that the device of Fig. 2 is helically wound. Further, nothing in this paragraph in any way contradicts the interpretation given to Fig. 2 as stated above which is believed to be accurate.


Consequently, it is urged that Shafer fails to make obvious the complicated helically wound flange form structure of applicant's claims and notice that the claims are allowable is

respectfully requested.

The Examiner is invited to contact the undersigned by telephone, if prosecution of this application can be expedited thereby.

Respectfully Submitted,

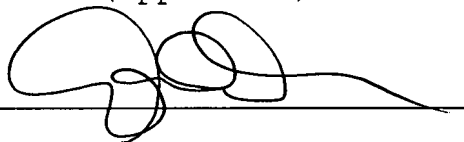
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October 30, 2007.

Roger P. Jackson  
(Applicant)

By

  
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October 30, 2007

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(Date of Signature)